

===== WPI =====

- TI - Inlet valve controller for IC engine with turbo supercharger - has inlet valve shut time control unit to shut inlet valve quickly in low speed region and to delay closing of inlet valve in medium and high speed regions
- AB - J10220256 The controller has a variable moving valve mechanism for controlling the shut time of an inlet valve, by controlling the operating angle of the inlet valve. An inlet valve shut time control unit regulates the operation of the variable moving valve mechanism so that the inlet valve is shut quickly in the low speed region.
- The closing of the inlet valve is delayed in medium speed region and in high speed full admission region, by the inlet valve shut time control unit. The supercharging pressure characteristic is set up so that the exhaust pressure of the turbine inlet port, is less than the supercharging pressure at the compressor exit side in the full load area before opening a gate valve.
 - USE - Used as automobile engine, gasoline engine for motor vehicle.
 - ADVANTAGE - Improves anti-knock property. Inhibits deterioration of operation characteristic by optimizing inlet valve shut time. Enables to reconcile power capability and fuel consumption.
 - (Dwg.10/12)
- PN - JP10220256 A 19980818 DW199843 F02D13/02 010pp
- PR - JP19970026222 19970210
- PA - (NSMO) NISSAN MOTOR CO LTD
- MC - X22-A03C X22-A03G
- DC - Q51 Q52 X22
- IC - F01L13/00 ; F02B37/00 ; F02B39/00 ; F02D13/02 ; F02D23/00 ; F02D43/00
- AN - 1998-502878 [43]

===== PAJ =====

- TI - INTAKE VALVE CONTROLLER OF INTERNAL COMBUSTION ENGINE WITH TURBOSUPERCHARGER AND METHOD FOR CONTROLLING IT
- AB - PROBLEM TO BE SOLVED: To provide compatibility to power performance and fuel consumption by increasing the compression ratio of an internal combustion engine provided with a turbosupercharger without deteriorating low-speed torque and responsiveness.
- SOLUTION: A variable valve mechanism for changing the operating angle is used for an intake valve 5, and the closing timing is variably controlled with the closing timing is held constant. The relative large A/R (the ratio of the scroll narrowest sectional area A and the distance R from the shaft center) is provided to a turbosupercharger 9 so that exhaust pressure on a turbine inlet may be equal to or not more than supercharged pressure of a compressor outlet in all load ranges before a waste gate valve is opened. Since the intake valve closing timing is controlled according to the engine speed before a waste gate valve 11 is opened and since it is controlled in the low-speed range so as to approach the bottom dead center, the intake air back flow in the initial stage of the compression stroke is prevented, and low-speed torque and responsiveness are improved even in a supercharger having the large A/R.
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- ABD - 19981130
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- AP - JP19970026222 19970210
- PA - NISSAN MOTOR CO LTD
- IN - AOYAMA SHUNICHI; TAKEMURA SHINICHI
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